

Oct. 31, 1950

M. FOX
CHAIR IRON

2,528,223

Filed Nov. 29, 1946

3 Sheets-Sheet 1

Fig. 1.

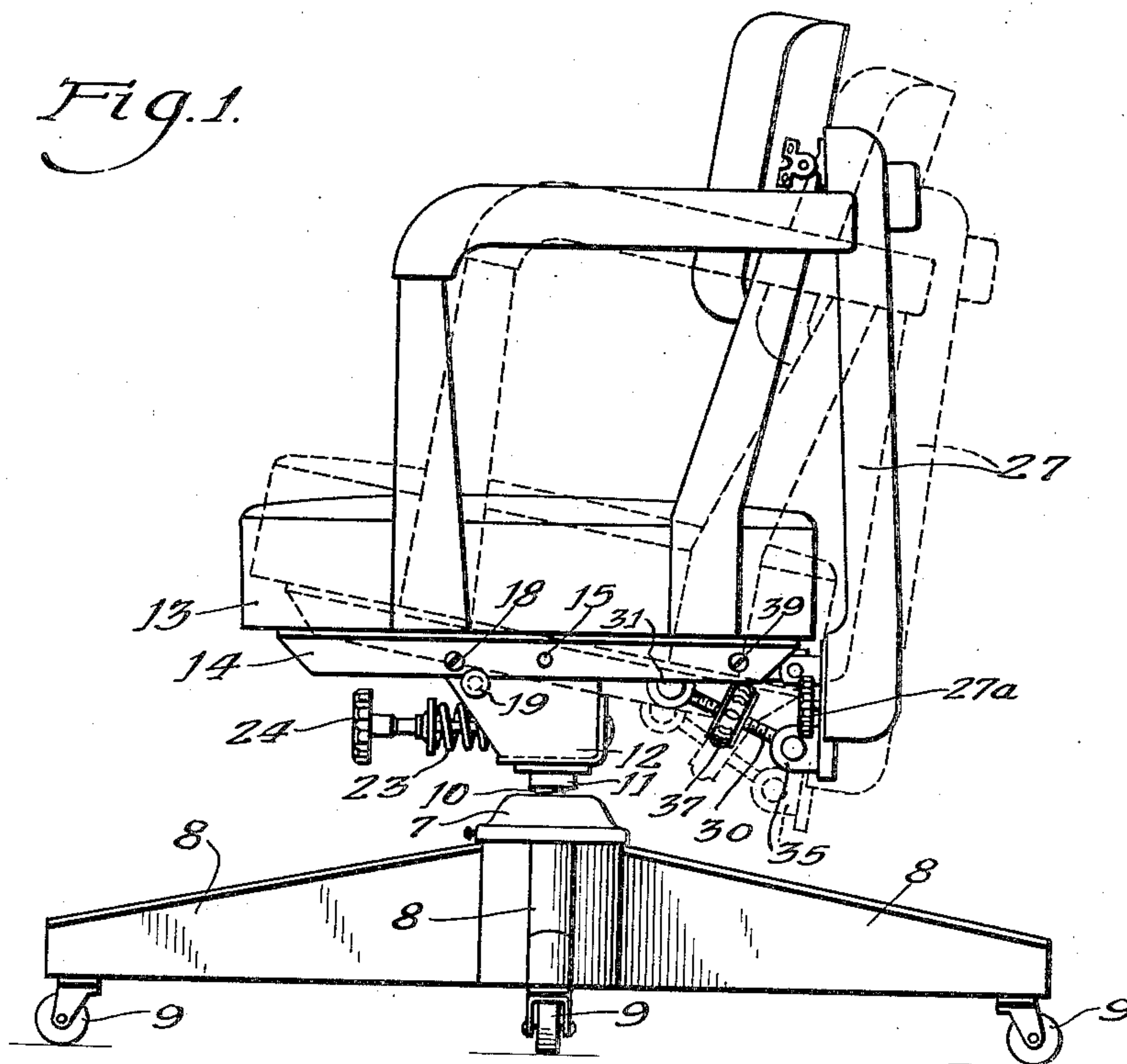
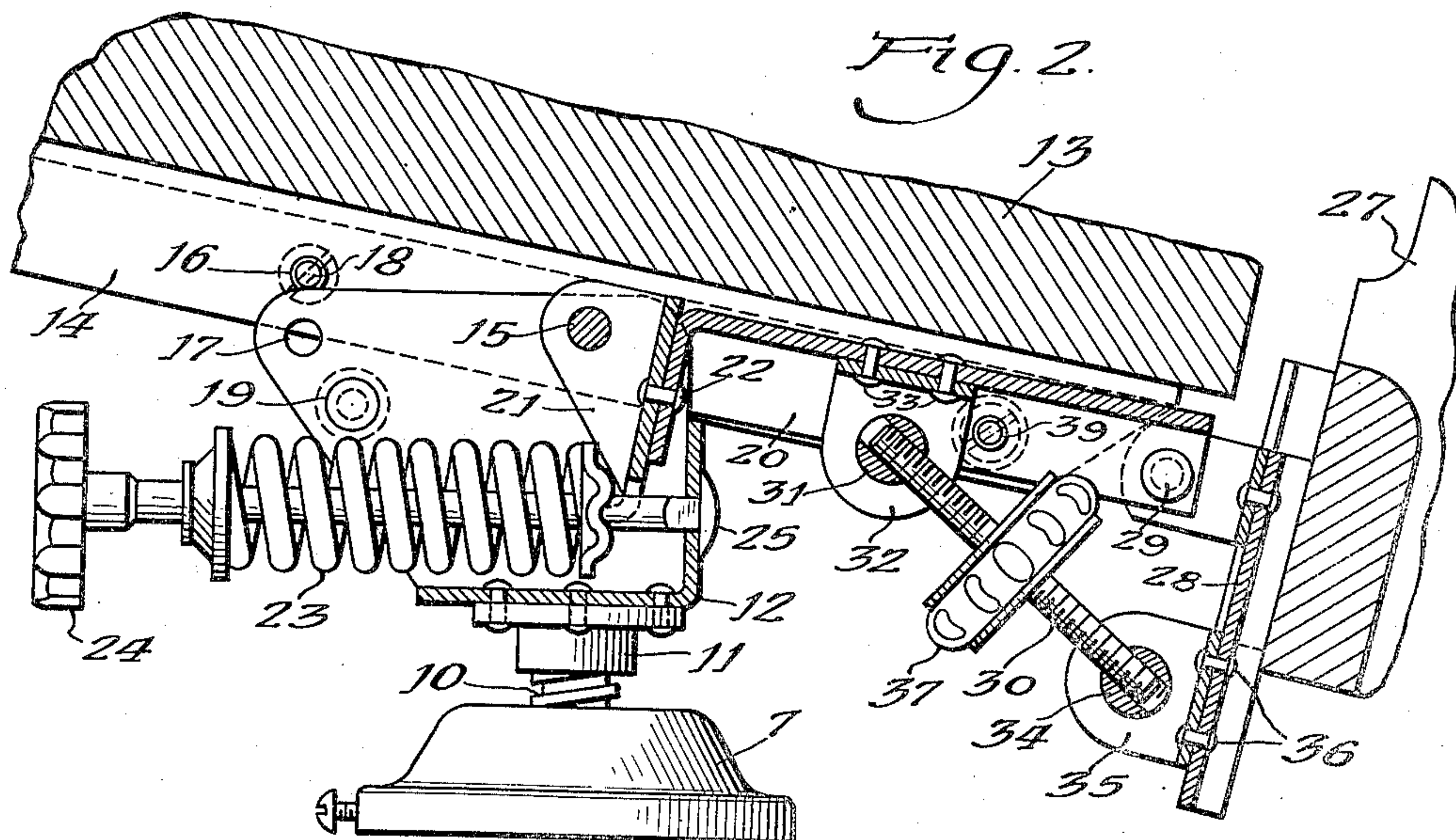


Fig. 2.



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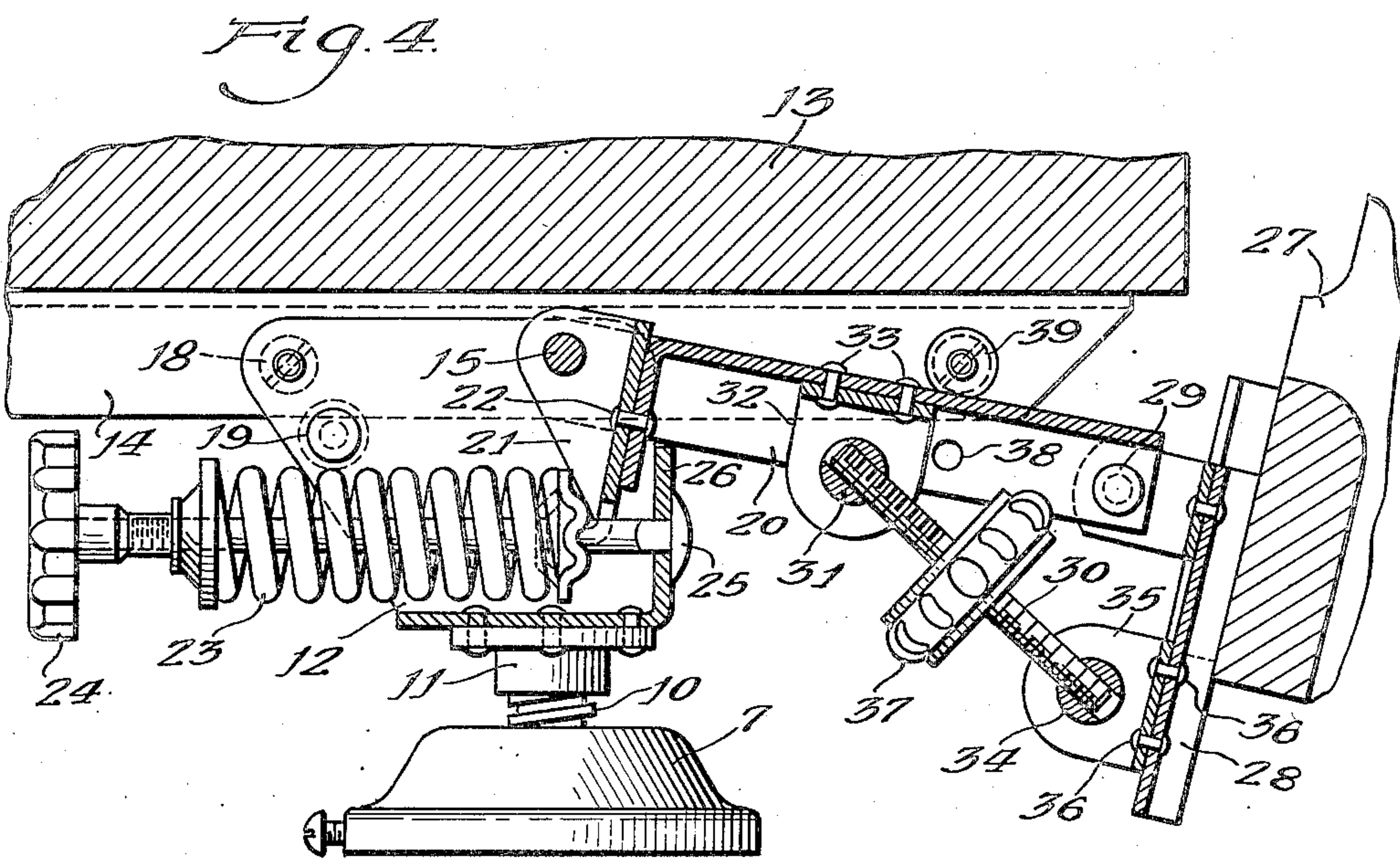
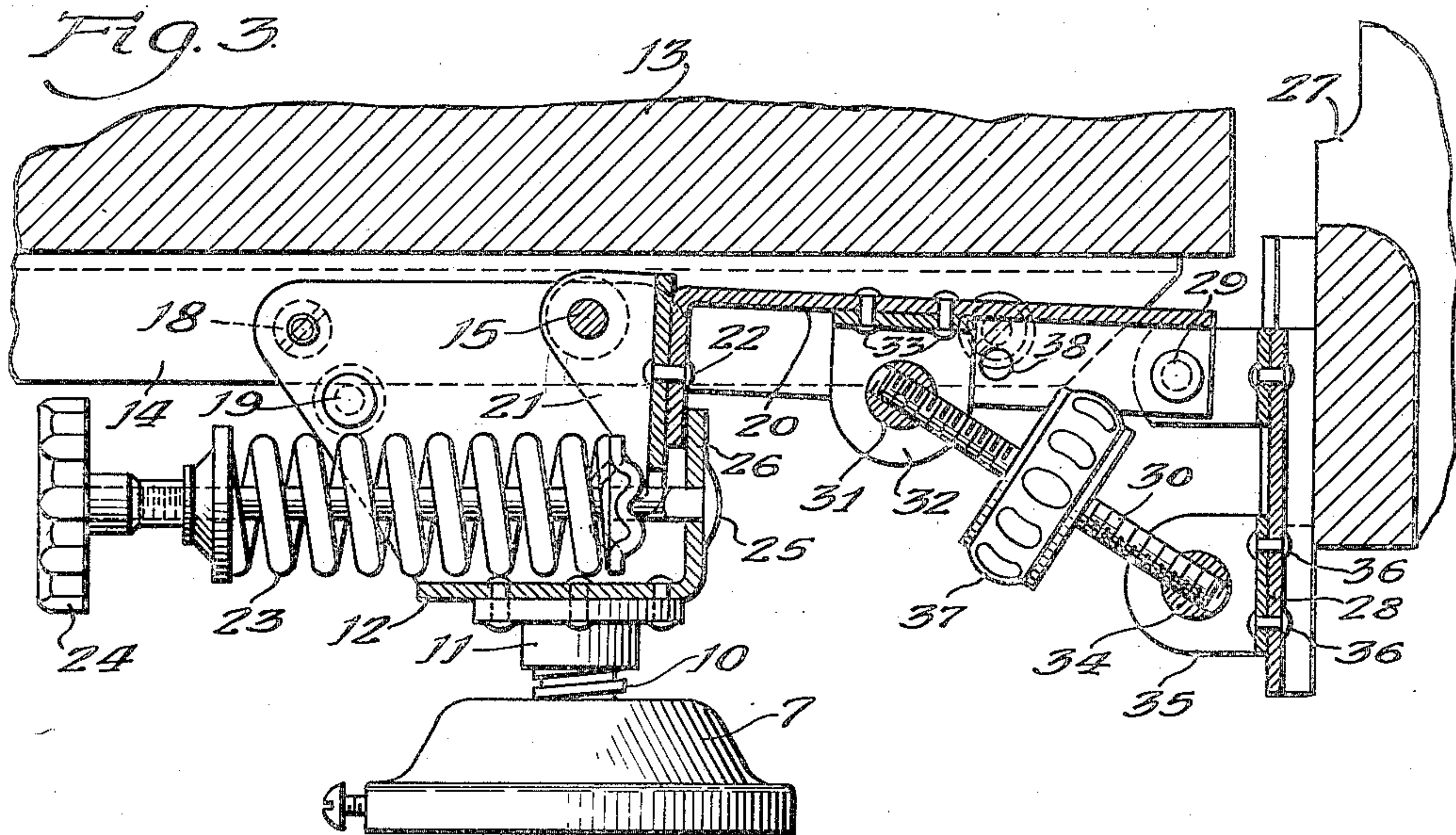
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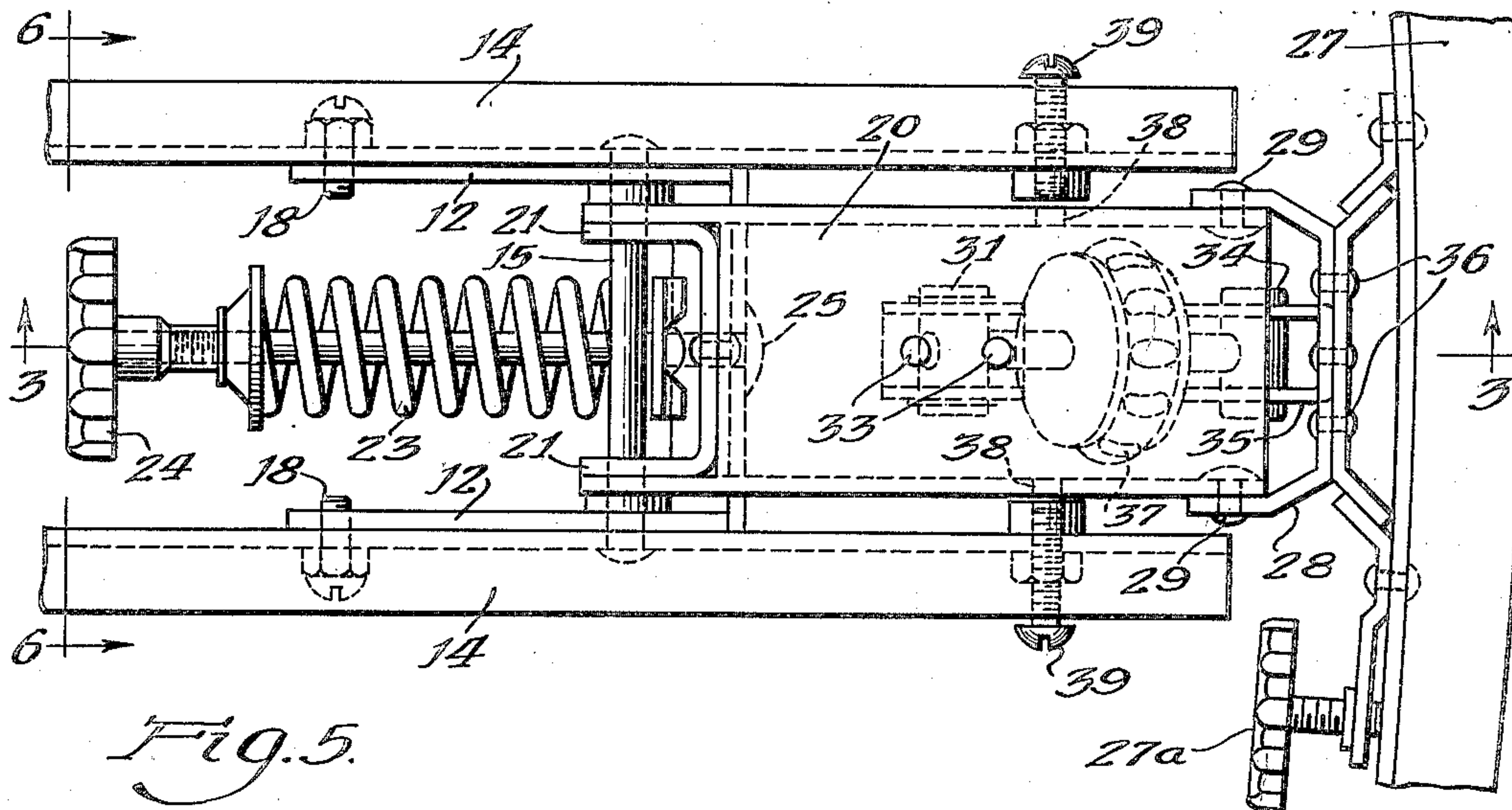


Fig. 5.

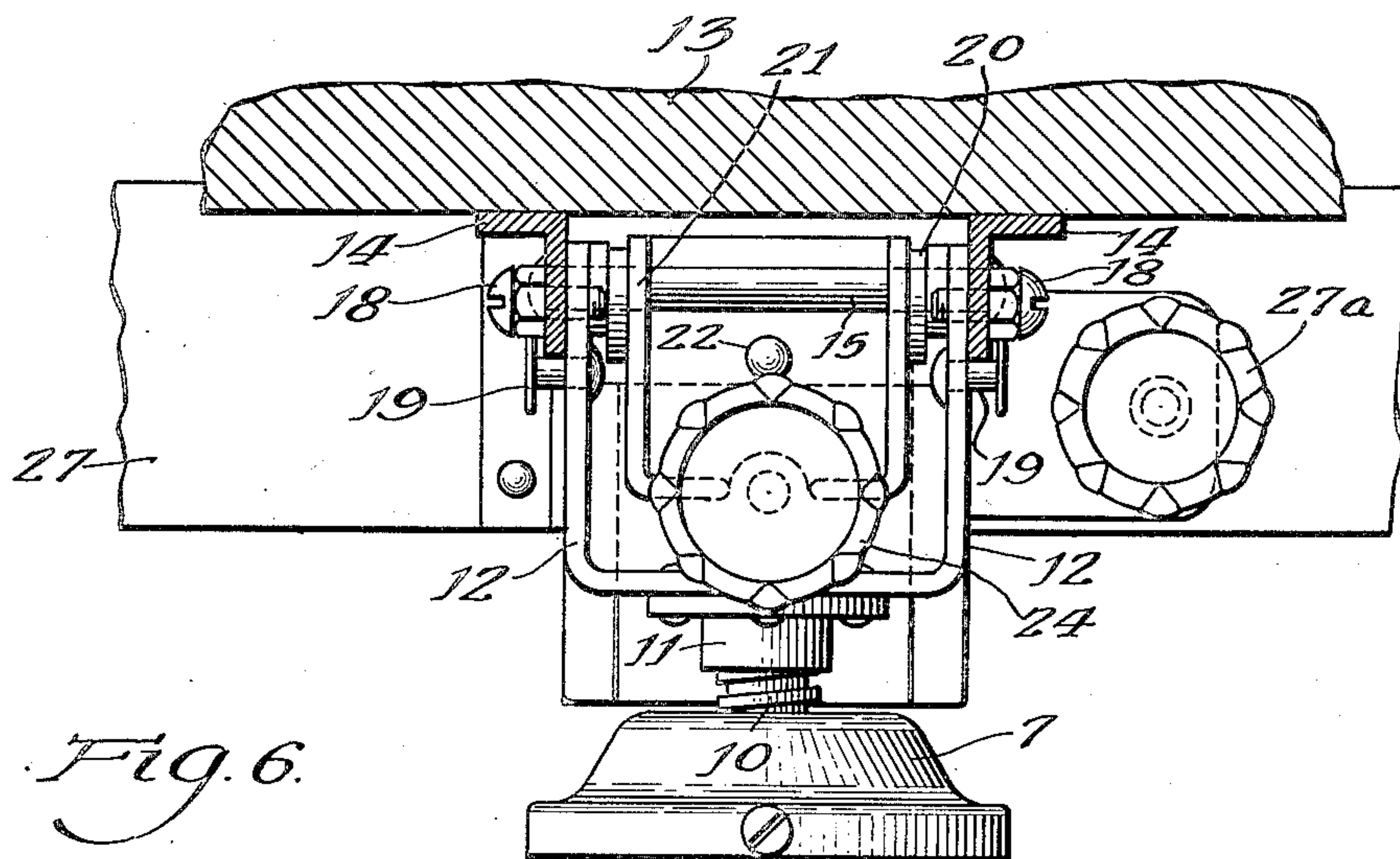


Fig. 6.

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UNITED STATES PATENT OFFICE

2,528,223

CHAIR IRON

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Application November 29, 1946, Serial No. 712,840

3 Claims. (Cl. 155—77)

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This invention relates to an improvement in chairs of the type having a tiltable back, and more particularly to an improved chair iron which supports a seat-member rigidly or, if preferred, in a manner that it will tilt with the back-member.

The primary object of the invention is to provide a simple and sturdy chair iron which will enable the user to convert it from a chair having a tiltable to one having a rigid seat, as preferred.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which—

Figure 1 is a side elevational view of a swivel chair embodying the invention mounted so that the seat will tilt with the back-member; Fig. 2 is a fragmentary vertical sectional view showing the seat and back in tilted position; Fig. 3 is a fragmentary vertical sectional view showing the seat-member secured to the headpiece so that it will not move with the back-member, taken as indicated at line 3—3 of Fig. 5; Fig. 4 is a vertical sectional view similar to Fig. 3 but showing the back in tilted position; Fig. 5 is a top fragmentary plan view of the chair iron and an adjustable back-rest attachment; and Fig. 6, a fragmentary front vertical sectional view, taken as indicated at line 6—6 of Fig. 5.

In the embodiment illustrated, a conventional base 7, having legs 8 and casters 9, forms a swivel support for a threaded spindle 10. The spindle has a crown 11 to which is riveted a U-shaped headpiece 12.

A seat-member 13 is provided with a pair of angular brackets 14 which are pivotally connected to the headpiece 12 by means of a pintle 15. The brackets 14 are provided with tapped holes 16 which are adapted to register with holes 17 in the headpiece and receive threaded studs 18, and hold the seat member rigidly on the headpiece 12. The headpiece is shown provided with outwardly extending studs 19 which limit the downward travel of the arms 14 when the studs 18 are removed.

The back-member has a forwardly extending bell-crank formed by an inverted U-shaped member 20 provided at its front end with a downwardly extending arm 21 and held in position on the arm 21 by a rivet 22. The bell-crank is pivoted to the headpiece by the pintle 15 which extends through the members 20 and 21. The back member is urged to upright position by a compression spring 23 which bears against the lower end of the member 21, and the tension in the spring may be adjusted by rotating a threaded

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handle member 24 on a stud 25 which extends through a back plate 26 of the headpiece 12, and also through the spring 23. A back rest 27 is vertically adjustable in a conventional manner, on a bracket 28 by means of a hand screw 27a as shown in Figs. 5 and 6. The bracket 28 is pivoted to the bell-crank on studs 29 and the angular position of the back-rest with respect to the bell-crank is controlled by a right and left screw 30, whose front end engages a nut 31 rotatably mounted in a bracket 32 which is riveted to the bell-crank, as indicated at 33. The opposite end of the adjusting screw 30 engages a nut 34 which is rotatably mounted in a bracket 35 which is riveted to the member 28, as indicated at 36. A hand wheel 37 facilitates turning the screw 30 to change the angular position of the back-rest.

The bell-crank is shown provided with a pair of holes 38 which are adapted to register with holes in the brackets 14 of the seat member and receive threaded studs 39, so as to lock the bell-crank to the seat-member. Thus, it will be understood that if the studs 18 are moved outwardly so as to be released from the front of the headpiece 12 and the screws 39 are turned inwardly, as indicated in Figs. 1 and 2, the seat member will rock about the pintle 15 with the back-member. On the other hand, if the studs 39 are withdrawn and the studs 18 engaged, as shown in Figs. 5 and 6, the seat will be held rigidly and the back will be free to tilt. This adjustment may be accomplished by a single stud which may be used alternately in a front or rear hole. Preferably, however, a pair of screws are used, so that only the front holes or the rear holes will be engaged at one time. In the drawings, four separate screws have been shown for convenience, but obviously one screw, or preferably a pair, would be ample.

The foregoing detailed description is given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, for some modifications will be obvious to those skilled in the art.

I claim:

1. A chair iron affording a tiltable back, comprising: a head-piece; a pivot pin on said head-piece; a back-member pivotally mounted on said pivot pin; spring means on said head-piece resiliently urging said back-member to an upright position; a seat-member pivotally mounted on the pivot pin independent of the pivotal mounting of the back-member; and alternatively selective means, spaced from said pivot pin, for

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fixedly securing said seat-member to the head-piece to prevent pivotal movement thereof on the pivot pin while permitting pivotal movement of said back-member, or for securing the seat-member to the back-member for simultaneous pivotal movement of both said members on the pivot pin.

2. Apparatus as specified in claim 1, in which the selective means includes a stud adapted to engage registering holes in the head-piece and seat-member, in front of the pivotal connection, or registering holes in the back-member and seat-member in rear of said pivotal connection.

3. Apparatus as specified in claim 1, in which the back-member includes a forwardly extending

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bell-crank to which the seat may be attached, a back-rest pivotally secured to the rear of said bell-crank, and means for adjusting the angular relation of said back-rest to the bell-crank.

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